AMENDMENTS

In the specification:

The paragraph, beginning at page 1, line 20 has been amended as follows:

The present application is a continuation of U.S. Patent Application No. 09/344,639, filed on June 26, 1999, now allowed; which is a continuation-in-part of ~~a non-provisional utility patent application filed in the United States Patent and Trademark Office, Serial Number~~ U.S. Patent Application No. ~~08~~ 09/231,422, filed on January 14, 1999, now allowed.

The paragraph, beginning at page 8, line 7 has been amended as follows:

FIGURES 6A and 6B ~~is a~~ are diagrammatic views showing binding of whole (1-84) PTH compared with interference from ~~PIN~~ non (1-84) PTH fragments (e.g., (7-84) PTH (SEQ ID NO:6)) in conventional I-PTH assays.

The paragraph, beginning at page 11, line 7 has been amended as follows:

In order to make the signal antibody in the above assay, first one makes a synthetic PTH peptide corresponding either to hPTH (Ser -Val -Ser -Glu -lle -GIn -Leu -Met) (SEQ ID NO:4), rat PTH (Ala -Val- Ser -Glu -lle -GIn -Leu -Met) (SEQ ID NO:7), or at least four amino acids in the common sequence. The selected peptide can play two roles in making an assay, first as a specific source for creating a polyclonal antibody or monoclonal antibody source for signal antibody or capture antibody, and second as part of an affinity purification means for isolating the desired signal antibody or capture antibody.

At page 12, please amend the paragraph of lines 8-22 as follows:

To create an affinity-purified ~~anti-(1-6)~~ anti-(1-6) PTH antibody, one first uses a selected initial PTH sequence peptide as described above as part of an immunogen for injection into a goat. The peptide can be used either by itself as an injectable immunogen, incorporated into a non PTH peptide having a molecular weight, typically, of between about 5,000 and 10,000,000, or as part of the wPTH complete sequence. The ~~imrnunogen~~ immunogen is mixed with an equal volume of Freunds complete adjuvant which is a mixture of light mineral oil, Arlacel detergent, and inactivated mycobacterium tuberculosis bacilli. The resulting mixture is homogenized to produce an aqueous/oil emulsion which is injected into the animal (typically a goat) for the primary immunization. The immunogen dose is approximately 50-400 micrograms. The goats are injected monthly with the same dose of immunogen complex except no mycobacterium tuberculosis bacilli is used in these subsequent injections. The goats are bled monthly, approximately three months after the 20 primary immunization. The serum (or antiserum) is derived from each bleeding by separating the red blood cells from the blood by centrifugation and removing the antiserum which is rich in (1-6) PTH antibodies.

The paragraph, beginning at page 13, line 16 has been amended as follows:

FIGURE 5 shows the results for 34 normal human serum samples from healthy subjects which were assayed both by the present wPTH IRMA and the above I-PTH assay. In every case, the level of wPTH detected by the IRMA is lower than that reported by the I-PTH assay, demonstrating the ability of the present IRMA to avoid detecting the interfering large, non (1-84) PTH fragments detected by the I-PTH assay. FIGURES 6A and 6B illustrate[s] how such interference can occur. An N-terminal PTH specific signal antibody which is not specific to the initial PTH peptide sequence, as in the present invention, can detect not only wPTH (as in ~~the~~

~~upper part of~~ FIGURE 6A), but also can detect large, non (1-84) PTH fragments (as in ~~the lower part of~~ FIGURE 6B).